



Hands-on Training Programme on

HISTO AND BIOCHEMICAL TECHNIQUES

in Life Science Research



Date: 05-09, October 2026

Organised By

Fish Genetics and Biotechnology Division, ICAR-CIFA



ORGANIZER

Dr. P. K. Sahoo,
Director



HEAD

Dr. J. K. Sundaray
Fish Genetics and
Biotechnology Division



COURSE DIRECTORS

Dr. P. K. Meher
Dr. Uday Kumar Udit
Dr. S. Nandi



COURSE COORDINATORS

Dr. Binod Choudhary, Dr. L. Sahoo,
Dr. K. Murmu, Dr. Jannajay Padhi,
Dr. P. C. Nanadanpawar,
Dr. Avinash Rasal, Dr. Mohan R. Badhe



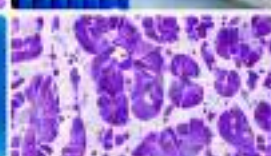
ABOUT THE TRAINING PROGRAMME

A five-day hands-on training programme is designed to provide participants with fundamental and practical knowledge of histological and biochemical techniques used in life science research. The programme will cover tissue processing, sectioning, staining and microscopic examination, along with the basics of DNA and RNA isolation and quality assessment. Participants will gain practical exposure to gel electrophoresis, primer designing and basic gene editing concepts. The training will also introduce various bioinformatics tools and software for sequence analysis, primer evaluation, gene annotation and molecular data interpretation. Emphasis will be placed on hands-on demonstrations, laboratory exercises and application of these techniques in research.



OBJECTIVES

- Understand the fundamentals of histology and biochemical techniques
- Learn sample collection (various tissues, blood collection, serum separation)
- Tissue processing, block preparation, and sectioning staining and Microscopic Observation
- Nucleic acid isolation & Quantification
- Western blot technique
- Basic gene editing concepts
- Bioinformatics tools and software



COURSE OVERVIEW



BASICS OF HISTOLOGY

- Tissue preparation: fixation, embedding, and sectioning
- Staining techniques: Hematoxylin & Eosin (H&E) staining, special stains for specific tissues.
- Microscopic examination of tissues and histopathological analysis.



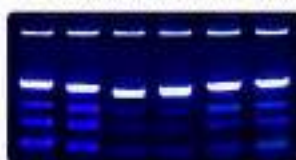
HORMONAL ASSAY

- ELISA (Enzyme-Linked Immunosorbent Assay) for hormone detection



NUCLEIC ACID TECHNIQUES

- Isolation of DNA & RNA
- Gel Electrophoresis
- Primer designing
- Basic gene editing concepts
- Bioinformatics tools and software



PROTEIN ANALYSIS

- Western Blotting technique
- SDS PAGE
- Blotting and staining



WHO SHOULD ATTEND

Researchers, Professors/Scientists, Graduate/postgraduate, Technicians and professionals working in research institutes, Universities, Colleges and related fields.



TRAINING COURSE FEES

Rs. 5000/-
including GST



BOARDING AND LODGING

Accommodation will be arranged in the institute training hostel on payment basis (Stay @ Rs. 200/day and Food @ Rs. 200/day, approximately)



LAST DATE TO APPLY

26 September,
2026



REGISTRATION

To register, please visit our website at

<https://www.cifatraining.com/program-details.php?pid=188>



FOR MORE INFORMATION CONTACT

Dr. U. K. Udit
(Mob. No. 8895413501)
Dr. P. K. Meher
(Mob. No. 7328619555)



ICAR-CENTRAL INSTITUTE OF FRESHWATER AQUACULTURE

(An ISO 9001:2015 Certified Institute)

KAUSALYAGANGA, BHUBANESWAR-751002, ODISHA, INDIA